

Remarks / Arguments

Claims 27-43 are pending in this application. Claim 1-26 and 44 have been canceled. Claim 33 has been amended in this response to correct the language.

In the Official Action, claims 27-29, 31-39, and 41-43 were rejected under §102(e) as being anticipated by U.S. Patent 6,117,643 of Simpson.

It is to be noted that present claims 28-41 are dependent claims referring to independent claim 27. Present claim 42 depends from dependent claim 41, and present claim 43 depends from claim 42.

For a rejection for anticipation to be proper, the prior art must show every limitation of the claimed invention. The Simpson patent does not anticipate the present claims.

The Simpson '643 patent relates to a bioluminescent bioreporter integrated circuit. This device is an integrated circuit which contains a photodetector (in addition to other components of the integrated circuit). A layer of polymer matrix containing a "reporter" material which emits light when it is contacted with a substance being detected is located in suitable proximity to the surface of the photodetector, separated from it by a transparent layer of biocompatible bioresistant material. When a substance to be detected comes into contact with the polymer layer and hence ultimately with the "reporter" material, light is emitted by the "reporter" material and detected by the adjacent photodetector, the size of the photodetector signal being proportional to the concentration of the material being detected. Several embodiments of the Simpson device are disclosed, but each operates in the manner discussed above.

The Simpson '643 reference does not anticipate the present claims because the photodetectors of Simpson do not correspond to the presently claimed "means for detecting the spatial distribution of signal(s) produced when said substance is in contact with at least one spatially-discrete area of said sheet of diffusion-controlling matrix." The Simpson detectors are incapable of detecting the spatial distribution of any signals produced when a substance to be detected comes in contact with a spatially discrete area of the polymer layer containing the reporting material. In other words, the Simpson photodetectors cannot determine where the

material being detected is located on the layer of polymer material which contains the reporter substance. The Simpson device is intended for detection and quantitation only, and cannot determine the spatial distribution of signals emanating from different areas of the polymer layer containing the reporter material. As the Simpson device is a very small integrated circuit, this is not surprising.


Claim 30 was rejected under §103(a) as being unpatentable over Simpson '643 in view of Ribí '810. Applicants respond that as the rejection of claim 27 for anticipation in view of Simpson '643 is unfounded, and there is no suggestion in the combination of these two references that the invention embodied in claim 30 should be made, the rejection for obviousness is defective.

Claim 40 was rejected under §103(a) as being unpatentable over Simpson '643. Applicants respond that as Simpson neither discloses nor suggests the invention of claim 27, the rejection of claim 40 in view of Simpson is unfounded.

Applicants continue to maintain that claim 27 should be allowable. Once claim 27 is allowed, the other claims of this application should be allowable as proper dependent claims referring to an allowed independent claim. Only if the examiner is able to make a proper rejection of claim 27 will it be necessary to consider the patentability of the dependent claims individually.

In view of the above amendments and arguments, this application is deemed to be in condition for allowance, and allowance is accordingly requested.

Respectfully submitted,



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